

Serial No.: 10/065,643
Confirmation No.: 5973
Applicant: ELIASSON, Goran
Atty. Ref.: 00173.0017.PCUS00

AMENDMENTS TO THE CLAIMS:

Please amend claims 7 - 11 as follows:

1. (Cancelled).
2. (Previously Presented) The arrangement as recited in claim 3, wherein said emergency brake (8; 8') comprises a parking brake configured to function as said emergency brake (8; 8').

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3. (Previously Presented) An arrangement for activating an emergency brake (8; 8') within a vehicle (1), the function of which is dependent upon a malfunction detection in a regular brake system of the vehicle, the arrangement comprising:

a first brake circuit and a second brake circuit; and

an emergency brake activation means (16; 24, 25, 26) for activating the emergency brake (8; 8') if a pressure (p_1) in the first brake circuit simultaneously falls below a first limit value (p_{1G}) when a pressure (p_2) in the second brake circuit falls below a second limit value (p_{2G}), said emergency brake activation means (16; 24, 25, 26) comprising a first sensor (20; 20') configured to detect if pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) and a second sensor (21; 21') configured to detect if pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}), the first pressure sensor (20; 20') being connected to a first valve (18) and configured to assume a first position when the pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) and the second pressure sensor (21; 21') being connected to a second valve (19) and configured to assume a first position when the pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}), said first and second valves (18, 19) being connected to a third valve (23) adapted to assume a position for actuating said emergency brake (8; 8') when the first valve (17) is in said first position and the second valve (18) is in said first position.

4. (Previously Presented) The arrangement as recited in claim 3, further comprising a valve device (15) for accommodating manual actuation of said emergency brake (8; 8').

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5. (Previously Presented) The arrangement as recited in claim 3, further comprising a first electronic control unit (24) to which the first sensor (20') and the second sensor (21') are connected, said control unit (24) functioning to activate said emergency brake (8; 8') if the first sensor (20') and the second sensor (21') indicate that the pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) and the pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}).

6. (Previously Presented) The arrangement as recited in claim 5, wherein the first sensor (20') being connected to the first control unit (24) via a second electronic control unit (25), and the second sensor (21') being connected to the first control unit (24) via a third electronic control unit (26), said second control unit (25) and third control unit (26) each functioning to detect whether the pressure in its associated brake circuit falls below their respective limit values (p_{1G} , p_{2G}), and by the second control unit (25) and the third control unit (26) being connected to the first control unit (24) for activation of said emergency brake (8; 8') if the second control unit (25) and the third control unit (26) indicate that the pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) and the pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}).

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7. (Currently Amended) A method for activation of a single ~~an~~ emergency brake function within a vehicle in dependence of whether a regular brake system of the vehicle that includes a first brake circuit and a second brake circuit is malfunctioning, the method comprising:

detecting whether a pressure (p_1) in the first brake circuit is below a first limit value (p_{1G});

detecting whether a pressure (p_2) in the second brake circuit is below a second limit value (p_{2G}); and

activating ~~of~~ said single emergency brake function when the pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) at the same time as the pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}) by blocking off fluid pressure supplied to a single pressure-actuated emergency brake.

8. (Currently Amended) An arrangement for activating a single ~~an~~ emergency brake in a vehicle having two brake circuits, said arrangement comprising:

two pressure sensors, one associated with each of two brake circuits of a vehicle and each sensor configured to detect when pressure in the respective brake circuit is below a predetermined limit; and

an emergency brake actuation arrangement associated with a fluid pressure supply to the emergency brake, said emergency brake actuation arrangement configured to isolate the emergency brake from the fluid pressure supply upon both sensors detecting pressure in the

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respective brake circuits being below the predetermined limits and thereby causing the emergency brake to actuate.

9. (Currently Amended) The arrangement as recited in claim 9 ~~claim 8~~, wherein said emergency brake actuation arrangement further comprises fluid pressure disconnect valving that is closed thereby blocking communication of fluid pressure from the fluid pressure supply to the emergency brake when both sensors detect pressure in the respective brake circuits being below the predetermined limits.

10. (Currently Amended) ~~The arrangement as recited in claim 8,~~ An arrangement for activating a single emergency brake in a vehicle having two brake circuits, said arrangement comprising:

two pressure sensors, one associated with each of two brake circuits of a vehicle and each sensor configured to detect when pressure in the respective brake circuit is below a predetermined limit; and

an emergency brake actuation arrangement associated with a fluid pressure supply to the emergency brake, said emergency brake actuation arrangement configured to isolate the emergency brake from the fluid pressure supply upon both sensors detecting pressure in the respective brake circuits being below the predetermined limits and thereby causing the emergency brake to actuate and wherein said emergency brake actuation arrangement further comprises a vent valve that connects the emergency brake to atmosphere when both sensors detect pressure in the respective brake circuits being below the predetermined limits.

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11. (Currently Amended) An arrangement for activating a single an emergency brake in a vehicle having two brake circuits, said arrangement comprising:

two pressure sensors, one associated with each of two brake circuits of a vehicle and each sensor configured to detect when pressure in the respective brake circuit is below a predetermined limit; and

an emergency brake actuation arrangement associated with a fluid pressure supply to the emergency brake, said emergency brake actuation arrangement configured to connect the single emergency brake to atmosphere upon both sensors detecting pressure in the respective brake circuits being below the predetermined limits and thereby causing the emergency brake to actuate.

12. (Previously Presented) The arrangement as recited in claim 11, wherein said emergency brake actuation arrangement further comprises fluid pressure disconnect valving that is closed thereby blocking communication of fluid pressure from the fluid pressure supply to the emergency brake when both sensors detect pressure in the respective brake circuits being below the predetermined limits.

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13. (New) A method for activation of an emergency brake function within a vehicle in dependence of whether a regular brake system of the vehicle that includes a first brake circuit and a second brake circuit is malfunctioning, the method comprising:

providing an arrangement for activating an emergency brake (8; 8') within a vehicle (1), the function of which is dependent upon a malfunction detection in a regular brake system of the vehicle, the arrangement comprising: a first brake circuit and a second brake circuit; and an emergency brake activation means (16; 24, 25, 26) for activating the emergency brake (8; 8') if a pressure (p_1) in the first brake circuit simultaneously falls below a first limit value (p_{1G}) when a pressure (p_2) in the second brake circuit falls below a second limit value (p_{2G}), said emergency brake activation means (16; 24, 25, 26) comprising a first sensor (20; 20') configured to detect if pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) and a second sensor (21; 21') configured to detect if pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}), the first pressure sensor (20; 20') being connected to a first valve (18) and configured to assume a first position when the pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) and the second pressure sensor (21; 21') being connected to a second valve (19) and configured to assume a first position when the pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}), said first and second valves (18, 19) being connected to a third valve (23) adapted to assume a position for actuating said emergency brake (8; 8') when the first valve (17) is in said first position and the second valve (18) is in said first position;

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detecting whether a pressure (p_1) in the first brake circuit is below a first limit value (p_{1G});

detecting whether a pressure (p_2) in the second brake circuit is below a second limit value (p_{2G}); and

activating of said emergency brake function when the pressure (p_1) in the first brake circuit falls below the first limit value (p_{1G}) at the same time as the pressure (p_2) in the second brake circuit falls below the second limit value (p_{2G}) by blocking off fluid pressure supplied to a pressure-actuated emergency brake.